

541, 257

10/541257

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau(43) International Publication Date
22 July 2004 (22.07.2004)

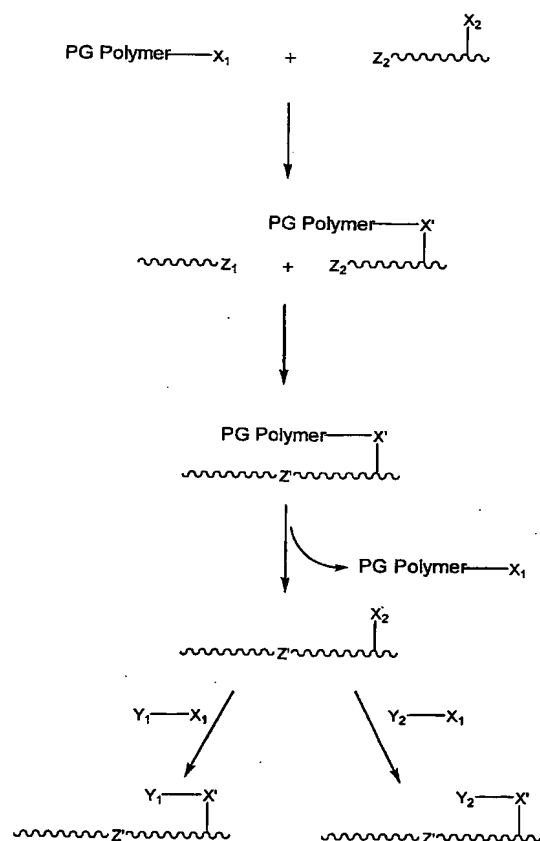
PCT

(10) International Publication Number
WO 2004/060925 A2

- (51) International Patent Classification⁷: C08F (72) Inventors; and
(21) International Application Number: PCT/US2003/041459 (75) Inventors/Applicants (for US only): KOCHENDOERFER, Gerd, G. [DE/US]; 686 66th Street, Oakland, CA 94609 (US). SHAO, Haiyan [CN/US]; 251 Winchester Court, Foster City, CA 94404 (US). CRESSMAN, Sonya [CA/CA]; 14-3449 Hallberg Road, Ladysmith, British Columbia V9G 1L2 (CA).
(22) International Filing Date: 30 December 2003 (30.12.2003)
(25) Filing Language: English (74) Agent: FRANCIS, Carol, L.; Bozicevic, Field & Francis-LLP, 200 Middlefield Road, Suite 200, Menlo Park, CA 94025 (US).
(26) Publication Language: English
(30) Priority Data: 60/437,511 30 December 2002 (30.12.2002) US (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
(71) Applicant (for all designated States except US): GRYPHON THERAPEUTICS, INC. [US/US]; 600 Gateway Boulevard, South San Francisco, CA 94080-7014 (US).

[Continued on next page]

(54) Title: MULTIPLEX POLYMER LIGATION



(57) Abstract: The invention concerns a multiplex polymer ligation method involving water-soluble polymeric protecting groups, compositions and methods of use. The method involves synthesis of a first compound bearing one or more water-soluble polymeric protecting groups followed by replacing one or more of the water-soluble protecting groups with a chemical adduct of interest. Multiple different compounds derived from the first compound can be readily prepared by splitting the first compound into first and second reaction systems, followed by replacing one or more of the water-soluble polymeric protecting groups of the first reaction system with a first chemical adduct, and replacing one or more of the water-soluble polymeric protecting groups of the second reaction system with a second chemical adduct of interest, where the first and second chemical adducts are different. Also provided are kits useful for carrying out the multiplex polymer ligation methods of the invention.

WO 2004/060925 A2



(84) **Designated States (regional):** ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.